

## CLAIMS

1. A protein which comprises an amino acid sequence from first Gly to 125th Cys of that shown in SEQ ID No.: 27.

5 2. The protein as claimed in claim 1 which comprises an amino acid sequence from - 20th Met to 125th Cys of that shown in SEQ ID No.: 27.

3. A protein which comprises the amino acid sequence of claim 1 or 2, in which one or more amino acid residues are substituted, deleted, inserted or added, and has a secretory type phospholipase A<sub>1</sub> activity.

10 4. A DNA which encodes the protein as claimed in any one of claim 1, 2 or 3.

5. The DNA as claimed in claim 4 which comprises a base sequence from 89th g to 463rd c of that shown in SEQ ID No.: 26.

15 6. The DNA as claimed in claim 5 which comprises a base sequence from 29th a to 463rd c of that shown in SEQ ID No.: 26.

7. A DNA which hybridizes to the DNA as claimed in claim 5 or 6 under the stringent condition and encodes the protein having a secretory type phospholipase A<sub>1</sub> activity.

20 8. A vector which has the DNA as claimed in any one of claims 4 to 7.

9. A transformant which is obtained by inserting the expression vector as claimed in claim 8 to a host.

10. The transformant as claimed in claim 9 wherein the host is a mammalian cell line.

25 11. A method for producing recombinant secretory type phospholipase A<sub>1</sub> which comprises a step of the culture of the transformant as claimed in claim 9 or 10 and a step of recovering a produced recombinant protein from

the culture.

12. An antibody which specifically recognizes the protein as claimed in any one of claim 1, 2 or 3.

13. A diagnostic agent for secretory type phospholipase A<sub>2</sub>-related diseases, which comprises the antibody as claimed in claim 12.

14. An assay kit for secretory type phospholipase A<sub>2</sub>, which comprises the antibody as claimed in claim 12.

15. A therapeutic agent for secretory type phospholipase A<sub>2</sub>-related diseases, which comprises the antibody as claimed in claim 12.

16. A screening method of a compound that specifically inhibits a secretory type phospholipase A<sub>2</sub> activity with the protein as claimed in any one of claim 1, 2 or 3.

17. A compound which is obtained by the screening method as claimed in claim 16.

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